KARO ECHO Newsletter

What's New

KARO ECHO Monthly Meeting, Dec. 13th, 1900 — ONLINE VIA ZOOM

The monthly KARO ECHO meeting will be held using the Zoom online meeting app, at the usual time, 1900, Monday Dec. 13th. Find the link to join in a KARO ECHO email from Howdy KE6BEE. Board officer elections will take place at this meeting. The training portion will focus on a review of the Fall SET. Full agenda link (some items have been reordered from the original agenda email).

KARO ECHO Board Officer Elections

You can still nominate yourself or propose someone else, if they agree, for any of the four elected offices at the 12/13 meeting. The nominations committee has collected the following nominations: for President (Howdy KE6BEE), Vice-President (Frans KJ6IUV), Secretary (Tom KN6NUY), and Treasurer (Annette KJ6SWK). The vote will take place at the Dec. 13th meeting by voting (paid) members. Thank you to the nomination committee (Don NI6A and Anette KJ6SWK).

KARO ECHO Fall SET

Thank you to everyone who participated in the fall Simulated Emergency Test (SET) on Saturday Nov. 13th. We had 18 operators. A recording of the SET is available online. Thanks to Michael AJ6RZ for taking a shift as net control and to Curt KM6HFT for deploying as the EOC operator. We also had a successful digital messaging element with 6 operators transferring more than 12 formatted radiogram messages with digital modes.

Updates to the KARO ECHO Constitution Posted for Vote in January

The Constitution update committee (Don NI6A and Martha K6ELO) have done a lot of work revising the KARO ECHO Constitution/Bylaws, including addressing input from a number of members. Many thanks to them for their work on this. Please review the new proposed Constitution update (posted for 30 day review period, with changes in red) and be prepared to vote on it at the January 10th club meeting.

Reminder to Renew Your Membership Dues

Yearly membership dues are $30/year for individuals, $40/year for a family membership. Mail to: KARO ECHO, PO Box 2025, 6324 Fairmont Ave, El Cerrito, CA 94530-3651

LOCAL NETS

KARO ECHO Simplex Nets

146.415 MHz (primary)
146.475 (secondary)

Voice net: Thursday, after the West Contra Costa RAC-ES Net, but not before 1900 hours local time.

Digital net: Monday, 1900

West Contra County ACS/RACES Net

145.110 MHz repeater
(TX down 600 with PL 82.5)
Thursday: 1845 local time

Contra Costa County HF EmComm/RACES Net
3893 KHz. Thursday, 1835

American Red Cross of the Bay Area (ARCBA)

WW6BAY Repeater
443.975 MHz
TX +5 MHz, PL 100 Hz
Wednesday: 2000 local time

BOARD OFFICERS
President: Hal KK6NDF
Vice-Pres. and Emer. Coordin.
Howdy KE6BEE
Treasurer: Larry KK6GIO
Secretary: Tom KN6BUY
Outreach/PR Manager:
Blake KN6CMP
Webmaestro: Rob K6RJM
Board members at large:
Don, NI6A
Annette, KJ6SWK

What's New *(continued)*

Neighborhood nets and Communication Hub Activities

The first Wednesday of the month has a lot of radio activity in the area.

West county EmComm net out of Richmond at 11 am (starts after the Richmond siren test) FRS/GRMS simplex (on Ch.19, secondary Ch. 17), followed by a ham net on the WA6KQB 440 repeater with WA6DUR repeater as secondary (see WA6DUR freq. information below)

East Richmond Heights, ham operators check-in at 1845 on Walt's WA6DUR repeater 442.150 +5 offset and PL tone 107.2Hz.

EC4 (central El Cerrito Hills) CERT Net, Ch. 2 (462.5875), at 1845

EC9 (north El Cerrito Hills) CERT Net, Ch. 15 simplex (462.550), at 1900

East Richmond Heights, Ready-2-React Net, Ch. 7 (462.7125), at 1930

EC8 (north El Cerrito) CERT net, Ch.4 (462.6375), at 2000

Ken6 (SW Kensington) CERT net, on first Tuesdays, Ch. 6 (462.6875) at 1900

Richmond simulated EOC net, first Thursdays at 1030, on three simplex frequencies in this order: 147.450, 441.000, 223.400

Albany Radio Net, Wed. (weekly) 1900 on Ch.19 Albany Radio groups.io

Coordination of neighborhood FRS/GMRS frequencies can be found here.

Welcome New Hams

New El Cerrito licenses issued: none in past month

New Kensington licenses issued: none in past month

Action - Contribute to this Newsletter

Content for this newsletter is always welcome. We are seeking submissions for a new free classified section for selling/trading radio equipment/services. Anyone with events or other content suggestions please send them to the newsletter editor Howdy ke6bee@arrl.net

What's New *(continued)*

Digital Net, Wed. 12/20, 1930

Following the success of the weekly digital nets, and SET traffic using FLdigi/FLmsg formatted text messages, the coming digital net on 12/20, at 1930 on 146.415, will begin working with Winlink (or compatible clients) and the 1200 baud AX.25 (packet) digital mode. The intention will be to mostly use peer to peer traffic rather than connecting to radio gateways with internet connections. (see page 8 for more information)

ARRL Learning Network Webinars

Visit the ARRL Learning Network (a members-only benefit) to register, check on upcoming webinars, and to view previously recorded sessions.

ARRL members may register for upcoming presentations and view previously recorded Learning Network webinars. ARRL-affiliated radio clubs may also use the recordings as presentations for club meetings, mentoring new and current hams, and discussing amateur radio topics.

Zonehaven Interactive Map

Lookup your Zonehaven evacuation zone here by on this interactive map. If you have internet access at the time this map is layers with information about fire events, weather, evacuation orders and other information, but as a matter of preparedness, it is useful to know your zone number so that you will recognize your turn to evacuate when instructions are announced by zone numbers.

Treasurer's Report

Treasurer's Report November 2021

Larry Vanselow, KK6GIO, Treasurer

APRIL GENERAL FUND1 Beginning Balance $1,399.19

Income: December dues payments: .... KK6ZPM, KJ6WSS AND KE6HCE.

Total General Income: $70.00

Donations…………………………….....$0.00

Total General Disbursements $0.00

Ending Balance $1,467.17

(Portion as petty cash............... $0.00)

Thank you to all of the donations and membership payments that support our club.

Activities

Weekly Net Control Rotation

Thanks go out to the volunteer stations who have been taking turns as Net Control Stations (NCS) each Thursday. This rotation has been working very well and everyone has been doing a great job. The regular NCS roster has 9 operators. We have one opening as an opportunity for others to fill in. Please volunteer to give it a try. Download the new Net Script for NCS operators.

Below are the **new scheduled dates** for each operator next year. The KARO ECHO google calendar also has these assignments and can be found at the bottom of the events page. Add to your electronic calendar By pressing the "+GoogleCalendar" button in the lower right.

Net control is a skill that many operators should have and regularly practice. Please contact Howdy ke6bee@arrl.net if you are interested in taking a net control assignment.

Callsign	Name	Assigned Dates (skipped: Thanksgiving 11/25/2021, 11/24/2022)						
KE6BEE	Howdy Goudey	10/21/2021	12/30/2021	3/3/2022	5/5/2022	7/7/2022	9/8/2022	11/10/2022
KK6NDF	Hal Graboske	10/28/2021	1/6/2022	3/10/2022	5/12/2022	7/14/2022	9/15/2022	11/17/2022
KM6HBO	Jamuel Starkey	11/4/2021	1/13/2022	3/17/2022	5/19/2022	7/21/2022	9/22/2022	12/1/2022
KN6BUY	Tom Fattaruso	11/11/2021	1/20/2022	3/24/2022	5/26/2022	7/28/2022	9/29/2022	12/8/2022
K6RJM	Rob McNicholas	11/18/2021	1/27/2022	3/31/2022	6/2/2022	8/4/2022	10/6/2022	12/15/2022
KE6HCE	Armando Picciotto	12/2/2021	2/3/2022	4/7/2022	6/9/2022	8/11/2022	10/13/2022	12/22/2022
NI6A	Don Simon	12/9/2021	2/10/2022	4/14/2022	6/16/2022	8/18/2022	10/20/2022	12/29/2022
KN6CMR	Susan Yeaman	12/16/2021	2/17/2022	4/21/2022	6/23/2022	8/25/2022	10/27/2022	1/5/2023
KK6ZPM	Karen Fenton-Leong	12/23/2021	2/24/2022	4/28/2022	6/30/2022	9/1/2022	11/3/2022	1/12/2023

Thursday Net Training Exercises

Following the net check-ins every Thursday at 1900 on 146.415, KARO ECHO usually runs a training exercise to learn and practice skills that are important for successful disaster communications.

A list of potential training exercises is posted and maintained on the training page of the website.

A log of our check-in counts can be found here. Howdy KE6BEE typically updates this document in real time during the net, so you can check it against your log during or after the net.

We averaged 21 check-ins/week in 2020 with a high of 28. For 2021, we are averaging 19/week with a high of 25. Thanks for your participation. Keep it up!

About KARO ECHO

KARO ECHO is the name of the Kensington Amateur Radio Operators and the El Cerrito Ham Operators mutual benefit association, an all-volunteer non-profit group of amateur radio operators providing auxiliary communications for the cities of Kensington and El Cerrito in the event of a disaster. KARO ECHO works with CERT (Community Emergency Response Teams) in Kensington and El Cerrito, but is not an official part of the CERT program.

Monthly in-person meetings of KARO ECHO are on the 2nd Monday of each month at 7:00 pm, online using Zoom. The next meetings are:

♦ Dec. 13th, 2021

♦ Jan. 10th, 2021

Yearly membership dues are $30/year for individuals, $40/year for a family membership. Payments can be given to the Treasurer at monthly meetings or mailed to the address below. Participation is welcome independent of paid membership, but only licensed amateur radio operators who are dues paying KARO ECHO members will be allowed to vote on KARO ECHO business. Dues cover our 510c3 registration, post office box, web page, station operating manuals and more. Your input on useful expenditures to aid emergency communications is welcome.

Mail to: KARO ECHO, PO Box 2025, 6324 Fairmont Ave, El Cerrito, CA 94530-3651

Please see our website for more information: **www.karoecho.net**

You can contact the KARO ECHO board by email: **info@karoecho.net**

KARO ECHO Facebook

The KARO ECHO Group on Facebook has a lot of good information, more than is contained on our website. There is a whole wide world of emergency communications information at https://www.facebook.com/groups/1451216838315743/ Check it out and be inspired of what we can do to help disaster victims in our community.

Weekly Training Net

The Karo-Echo Weekly Training Net meets every Thursday evening immediately after the West Co Co County RACES/ACS Net; but not before 1900 on 146.415 MHz Simplex. Our secondary frequency is 146.475 MHz simplex. Details at https://www.karoecho.net/events

Newsletter Content Wanted

Any input on content you'd like to propose for inclusion in the KARO ECHO newsletter can be sent to Howdy ke6bee@arrl.net We welcome all ideas for content including announcements, events, etc.

KARO ECHO Field Day Video

Thanks to Frans KJ6IUV for taking video and editing a nice movie of Field Day activities.

Outreach, Education and Licensing

Write-up of message handling exercise

There is a writeup of a recent messaging exercise on the KARO ECHO website that covers prowords and fills and other guidance for operators when passing written messages.

Local and Online Ham License Classes and Exams

COVID restrictions have changed ham license classes and exams. Many are now offered in distanced/outdoor venues or entirely online. See a list of opportunities on the KARO ECHO website

Recruiting Additional Communications Coordinators

Read the Neighborhood District Radio Communications Coordinator (DRCC) plan written by Don NI6A.

Training for Beginning Operators

Thanks to Jay KJ6WSS, Edward KM6UBY and Karen KK6ZPM for their May 23rd introductory radio class, with emphasis on the GMRS radio BTECH-V1. A recording of the class and other resources are available here.

Net Control Operator Training

Diane KK6RED, David KJ6AAT and Howdy KE6BEE taught an Apr 4th net control class for C8 the county wide CERT organization. There was a great reception to this class across the county and we inspired many groups to expand the scope of their net trainings. The class recording is available here.

EMCOMM related videos

See the CERT SET Youtube video link

https://www.youtube.com/watch?v=66DdgGLln4c&list=PLROOaUlKdrEgSID1bQJZojW3PzfURoEY-&index=144&t=0s

Post Camp Fire GMRS organization

https://www.youtube.com/watch?time_continue=220&v=aZiSC4sgKYw&feature=emb_logo

ELMERING

An online elmering forum can be accessed by emailing elmer@karoecho.net or browsing the associated google group. More in-depth elmering/mentoring is available by request.

In the meanwhile, please check out the plethora of useful information at https://www.karoecho.net website.

Encouragement to Monitor 146.415 and Explore Other Nets

During the current shelter in place, with time spent at home, it is a good opportunity to use your radio and monitor 146.415 (call out for others occasionally and make some casual contacts). There are a lot of other nets around the bay area that you can reach. Expand your radio horizons. See the KARO ECHO Coordination page for a listing of some other nets to explore. You can just listen at first, or program your radio (if a repeater is used) and try transmitting as a guest check-in to see if you can make contact.

KAROECHO.Net Website

Especially, check out the EVENTS Page (https://www.karoecho.net/events) and the WORKSTREAMS drop-down menu which will lead one to an extensive training page that provides online learning at your own pace. Everything from the very beginning to advanced EmComm operations is detailed. The RESOURCE page has many excellent outside links.

- This new heading on the Events page will be updated with recent additions to the website.

- If you are on Facebook, contribute to the KARO ECHO Facebook Group Page at https://www.facebook.com/groups/1451216838315743/

- If you haven't already filled out the **JOIN** form please do. Find it as a drop down menu under "Get Involved" See https://www.karoecho.net/join

- A follow-through novice primer has been put on the website for new hams once they have bought their radio and want to learn more.

- A dual-band antenna primer for new hams who want to graduate from the rubber-ducky world

- Note that the Tram 1480 gain dual band antenna is currently still available for $51 (no tax and free shipping) on ebay or from Home Depot. That and an inexpensive speaker tripod is a dynamite combination for portable operation. This antenna is equivalent to the Diamond X-200a antenna which sells at HRO for $125.00 before taxes and shipping.

- For newbies, please visit https://www.karoecho.net/workstreams/training and read the study materials. It is all there except for hands-on experience. Ask questions!

- Following the Thursday evening net check-in, there is often a training session and/or discussion.

- All recent KARO ECHO **Minutes will be found at our Past Events page** We are now including past Executive Board Minutes as well. Newsletters are on the Documents Page.

If you desire to be removed from this email list, please email info@karoecho.net

Other Resources

"ALERTWildfire" camera links in our area:
William Rust Summit cam
Wildcat Canyon cam
Vollmer Peak cam
Nichol Knob cam

View real-time data from any weather station in the state.

Albany Radio Groups.io forum
Eastbay Resilience Groups.io forum
Marina Bay Neighbors and 1st Wed West county GMRS net

To make it easy for amateurs to evaluate RF exposure,
ARRL provides an RF exposure calculator on its RF Exposure page.

Digital Net - Winlink and Wired Computer/Radio Interfaces

During the past digital nets we have practiced sending formatted (Radiogram, ICS, etc) digital messages with FLdigi paired with FLmsg. During the fall SET, 6 operators sent over 12 digital messages using this mode. FLdigi/FLmsg works well for passing formatted messages between operators who are simultaneously on the air to coordinate. It can also be used with slower, robust modulation like MT63-2000L that allows acoustic coupling (no wired connection between radio and computer). The fact that the transmission is one-way, and there are no automatic back and forth exchanges, also enables acoustic coupling with manual PTT keying.

There are potential advantages to using a system like Winlink that supports a "mailbox" style, store and for-ward, system for operators to send and receive messages when they aren't both on the air at the same time and with automated error checking acknowledgements to streamline error free message passing. Because of the nature of this approach, a wired audio interface between the radio and computer is required including automated PTT. Winlink is a messaging interface that can be used with several communication protocols. For initial testing, we will use the AX.25 "packet" modulation at 1200 baud, and mostly peer to peer (P2P) opera-tion, rather than the local radio internet gateways (RMS servers) that bridge radio traffic to the internet.

You can download Winlink for Windows here by grabbing the Winlink Express .zip file. There are a number of compatible Winlink clients, including those for other platforms (MacOS and Linux). "Pat" is an interesting cross-platform option. Because Winlink or an equivalent messaging application may not include the modula-tion functionality built-in, there may be the need to pair it with another application that handles translating the digital message information into audio tones over a "sound card" device. In the case of packet and Win-link and the Windows OS, the soundmodem113.zip software from UX7HO is an example of a "software TNC" that works well. Traditionally hams used a hardware TNC device between a computer and a radio. Its job was to translate the digital messages into audio tones, much like a modem from the dial-up days of com-puter networks did the same task. These days with the proliferation of audio "sound cards" built-into com-puters or available as an inexpensive accessory, it is often easier and cheaper to achieve this modulation through software and less specialized hardware.

We started the FLdigi practice with a few operators using acoustic coupling. Now, at least 8 operators have setup wired digital interfaces to their radios and successfully passed digital traffic with them, enabling look-ing at other modes that require this type of interface (like Winlink/packet). To help those who are still look-ing into adding wired digital interface functionality, please reach out to elmers and refer to the information below. There is equipment available to be loaned, so you don't have to start by buying something new.

All of the following are "sound card" style computer radio interfaces:
Signalink ~$140 (VOX PTT, easily adjustable levels, and many premade cables for just about any radio)
Digirig ~$40 (good value, hardware PTT with minor soldering, not a lot of cables, might have to make one)
USB soundcard ~$10 (replicates what is already built into most computers, but good to have dedicated inter-face, still need a PTT function, could possibly get away with VOX built into radio)
VOX circuit kit ~$7 (requires soldering, could be added to a computer or USB soundcard for VOX PTT)
Built-in audio soundcard "free" in most computers (still need VOX PTT in radio or external circuit, or anoth-er form of hardware PTT, not all built-in sound card work well and you have to make sure to avoid putting computer system sounds on the air)
DIY interface from QST, and DIY VOX circuit from QST (these use audio transformers for isolation)

KARO ECHO Classifieds

We are soliciting classified ads from KARO ECHO members, and friends, to facilitate gifting, swapping, selling radio gear and/or offering help/services such as loans of special equipment/tools, etc.
Please send any content to the newsletter editor, Howdy ke6bee@arrl.net

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ARRL license plate frame

$0.50 for full KARO ECHO members

$1.00 for others, Proceeds go to KARO ECHO

Contact Don ni6a@arrl.net

Free Elmer support for KARO ECHO by Don NI6A. Phone, email and home consultations regarding antennas, SWR, assembly of coax and Anderson power pole connectors, lending of special test equipment, etc. Contact: elmer@karoecho.net for "free advice"

Loaner radios/antennas/meters available for trial/testing, including:

HTs, larger mobile radios, gear for digital modes and mesh nodes, SWR/power meter

Contact: Howdy ke6bee@arrl.net

Available for free: B&K Precision 2120B oscilloscope - 20MHz bandwidth, dual trace, triggered sweep. Contact: Tom, KN6BUY, at tfat@sbcglobal.net

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Chirp Elmering HELP WANTED: Edward KM6UBY posted instructions on the Marina Bay Neighbors training website to use CHIRP to load Jay's KJ6WSS WCC memory program of .img or .csv files for a variety of ham radios and the GMRS V1 radio. I hope to find Elmers located throughout WCC to direct the new recruits for help programming their radios. Anyone interested in helping, please contact me directly. Karen KK6ZPM

Natalie KM6UCF donated the six 2020 issues of the bimonthly ARRL "On the Air" magazine. Includes some good articles on transmission lines, go-kits, propagation, antennas, etc. Also, four books, including the ARRL Operating Manual which is a good reference.

Free to any member, modest donations to KARO-ECHO welcomed. Contact: Don ni6a@arrl.net

Some items shown may have been taken.